



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1150
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/780,930

02/17/2004

Jen-De Chen

250809-1070

1903

24504 7590 01/23/2007

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP

100 GALLERIA PARKWAY, NW

STE 1750

ATLANTA, GA 30339-5948

EXAMINER

CHEN, TSE W

ART UNIT

PAPER NUMBER

2116

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/780,930	Applicant(s) CHEN ET AL.	
	Examiner Tse Chen	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-7, 13, 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa et al., US Publication 20010014952, hereinafter Furukawa, in view of Jue, US Patent 6567931.

3. In re claim 1, Furukawa discloses a method for reducing the possibility of cold reset in a computer system [100] that includes a central processing unit (CPU) [139], a wake-up button [3] that is used to awaken [resume] the CPU from a sleep mode [suspend], and a battery [113] that supplies power to the computer system, and the method comprising:

- When the CPU is in the sleep mode and the period during which the wake-up button is pressed is less than a predetermined value [e.g., 4 seconds], the CPU continues to stay in the sleep mode [0019].

4. Furukawa did not disclose the CPU staying in the sleep mode even a wake-up event occurs when the CPU is in the sleep mode and the computer system's power supply is in an uncertain status.

5. Jue discloses a method in a computer system [130] that includes a CPU [200] supporting the function of software power [analogous to battery of Furukawa] fault handling [col.3, ll.47-61; bios executed on processor], the method comprising when the CPU is in the sleep mode [soft off]

Art Unit: 2116

and the computer system's power supply is in an uncertain status, the CPU staying in the sleep mode even a wake-up event occurs [col.3, ll.47-61; col.5, l.60 col.6, l.1].

6. It would have been obvious to one of ordinary skill in the art, having the teachings of Furukawa and Jue before him at the time the invention was made, to modify the method taught by Furukawa to include the teachings of Jue, in order to obtain the method that can handle power supply issues. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to better security and recovery operations [Jue: col.2, l.55 col.3, l.23].

7. In re claim 13, Furukawa and Jue disclose each and every limitation of the claim, as discussed above in reference to claim 1. Furukawa further discloses a computer system [100] comprising a delay protection circuit [2] that is used to detect the status of the wake-up button [0008].

8. As to claim 2, Jue discloses, wherein the uncertain power supply status is the status of battery fault [col.5, ll.50-59; power loss analogous to battery loss of Furukawa].

9. As to claims 5 and 16, Furukawa discloses, wherein the computer system is a personal digital assistant (PDA) [0038].

10. As to claims 6 and 15, Furukawa discloses, wherein the predetermined value [4 secs] is greater than the general value of the period during which the wake-up button is pressed due to a collision or an impact [collision or an impact lasts less than 4 secs], and less than the general value of the period during which the user intentionally presses the wake-up button [e.g., 5 secs] [0019].

Art Unit: 2116

11. As to claims 7 and 17, Furukawa discloses, wherein the predetermined value is greater than 1~2 millisecond [e.g., 4 secs]. Furukawa did not disclose explicitly that the predetermined value is less than 100 milliseconds. Examiner hereby takes Official Notice that it is well known in the art to adjust the predetermined timing value to less than 100 milliseconds. It would have been obvious to one of ordinary skill in the art, having the teachings of Furukawa and Jue before him at the time the invention was made, to modify the method taught by Furukawa and Jue so that the predetermined value is less than 100 milliseconds, as it is well known in the art to adjust the predetermined timing value to suit user's preference [e.g, user desires faster response].

12. Claims 3, 8-9, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa and Jue as applied to claim 1 above, and further in view of Kimura, US Patent 5375246.

13. Furukawa and Jue disclose each and every limitation of the claim, as discussed above in reference to claim 1. Furukawa further discloses a computer system [100] comprising:

- A CPU [131] that is used to control the computer system.
- A circuit unit [2] that is electrically connected to the CPU, and is used to receive a wake-up event and to selectively output the wake-up event to the CPU [0008].
- A detection circuit [4] that is used to control the circuit unit according to the status of the computer system [0008].

14. Furukawa did not disclose a status of uncertain power supply which includes the status when the battery lid is opened.

Art Unit: 2116

15. In re claim 3, Kimura discloses a method wherein the uncertain power supply status is the status when the battery lid is opened [col.5, l.66 – col.6, l.54; opening lid produces H level indicating battery replacement may be implemented].

16. In re claim 8, Kimura discloses a computer system [fig.1], wherein when in the sleep mode [standby] and the detection circuit has detected that the computer system is in a status of uncertain power supply which includes the status when the battery lid is opened [open lid with removal of battery], the sleep mode is still kept [col.5, l.66 – col.6, l.54; opening lid with removal of battery maintains H level standby mode to prevent memory write].

17. It would have been obvious to one of ordinary skill in the art, having the teachings of Kimura, Furukawa and Jue before him at the time the invention was made, to modify the computer system taught by Furukawa and Jue to include the teachings of Kimura, in order to obtain the claimed computer system. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to perform battery replacement without destroying data of volatile memory [Kimura: col.1, l.66 – col.2, l.4].

18. As to claim 9, Jue discloses, wherein the uncertain power supply status is the status of battery fault [col.5, ll.50-59; power loss analogous to battery loss of Furukawa].

19. As to claim 12, Furukawa discloses, wherein the computer system is a personal digital assistant (PDA) [0038].

20. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa and Jue as applied to claim 1 above, and further in view of Sakai, US Patent 6266776.

Art Unit: 2116

21. Furukawa and Jue disclose each and every limitation of the claim as discussed above.

Furukawa and Jue did not disclose explicitly the uncertain power supply status is the status when the battery is in low power.

22. Sakai discloses a method comprising when the CPU [11] that supports the function of software battery fault handling [via acpi os] is in the sleep mode and the computer system's power supply is in an uncertain status [e.g, low battery], the CPU staying in the sleep mode [s4], wherein the uncertain power supply status is the status when the battery is in low power [fig.5; col.1, ll.13-19; col.4, ll.25-27].

23. It would have been obvious to one of ordinary skill in the art, having the teachings of Sakai, Furukawa and Jue before him at the time the invention was made, to modify the method taught by Furukawa and Jue to include the teachings of Sakai, in order to obtain the method that includes low battery conditions. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to optimize power conservation related to sleep states [Sakai: col.1, l.65 – col.2, l.12].

24. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura, Furukawa and Jue as applied to claim 8 above, and further in view of Sakai, as applied to claim 4 above.

25. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Furukawa and Jue as applied to claim 13 above, and further in view of Kiani, US Patent 7034585.

26. Furukawa and Jue disclose each and every limitation of the claim as discussed above. Furukawa further discloses, wherein when the computer system is in the sleep mode, the delay protection circuit is enabled [0008, 0019; enabled to maintain state]. Furukawa and Jue did not

Art Unit: 2116

disclose when the computer system is in normal operation mode, the delay protection circuit is disabled.

27. Kiani discloses a computer system wherein when the computer system is in normal operation mode, the delay protection circuit [interface analogous to delay protection circuit] is disabled [col.1, ll.54-62].

28. It would have been obvious to one of ordinary skill in the art, having the teachings of Kiani, Furukawa and Jue before him at the time the invention was made, to modify the delay protection circuit taught by Furukawa and Jue to include the teachings of Kiani, in order to obtain the claimed computer system. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to avoid additional power consumption during normal operation [Kiani: col.1, l.66 – col.2, l.12].

Allowable Subject Matter

29. The indicated allowability of claims 3 and 10 is withdrawn in view of the newly discovered reference(s) to Kimura. Rejections based on the newly cited reference(s) are discussed above.

Response to Arguments

30. Applicant's arguments filed December 14, 2006 have been fully considered but they are not persuasive.

31. Applicant argues that Furukawa “can return to the normal operation as long as the... button 3 is pressed”. Examiner notes that Applicant’s narrow reading of Furukawa with the perspective of specifically returning to the normal operation state neglects Furukawa’s objective in preventing the transition of generic states [e.g., from suspend to normal or normal to suspend]

Art Unit: 2116

due to an unintentional operation [i.e., pressing of a button] [0024], as exemplified in the claims [pg.6; e.g., first state, second state].

32. As such, Applicant's arguments are deemed not persuasive and the rejections are respectfully maintained.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571) 272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tse Chen
January 7, 2007


REHANA PERVEEN
SUPERVISORY PATENT EXAMINER
1/16/07